

CLAIMS

1. A polyester film roll in which a polyester film is rolled on a core, characterized in that the difference R (m) between the maximum value and the minimum value is not more than $2W \times 10^{-3}$ and not more than $L \times 10^{-7}$, when the diameters of said roll are measured in the width direction of the roll, wherein, W is the width (m) of the film roll, and L is the rolled length (m) of the film roll.
2. The polyester film roll described in Claim 1, wherein the surface roughness R_a of the polyester film is not less than 0.1 nm and not more than 10 nm.
3. The polyester film roll described in Claim 1 or 2, wherein the thickness of the polyester film is not less than $0.5 \mu\text{m}$ and not more than $20 \mu\text{m}$.
4. The polyester film roll described in either one of Claims 1 to 3, wherein the degree of rolling hardness of the film roll is not less than 90 and not more than 100.
5. The polyester film roll described in either one of Claims 1 to 4, wherein the polyester film is a film comprising polyethylene terephthalate or polyethylene 2,6-naphthalenedicarboxylate.
6. The polyester film roll described in either one of Claims 1 to 5, wherein the difference (R_c) between the maximum value and the minimum value is not more than 300×10^{-6} m, when the roll diameters of the core are measured in the width direction of the core.
7. The polyester film roll described in Claim 1 or 6, wherein the roll shape of the core is a crown shape whose central portion is thick and whose both end portions are thin.

8. The polyester film roll described in Claim 1, 6 or 7, wherein the core is a fiber-reinforced plastic core.

9. The polyester film roll described in either one of Claims 1, 6 to 8,
5 wherein the flexural modulus of the core in the circumferential direction is not less than 13 Gpa.

10. The polyester film roll described in either one of Claims 1, 6 to 9,
10 wherein the degree of surface roughness R_{ac} of the core is not more than 0.6μ m.

11. The polyester film roll described in either one of Claims 1, 6 to 10,
wherein the degree of surface hardness of the core is not less than 65 degree.

12. The polyester film roll described in either one of Claims 1, to 11,
15 wherein the polyester film is a film used for the support of a magnetic recording medium.

13. The polyester film roll described in Claims 12, wherein the
20 magnetic recording medium is a digital recording method magnetic recording medium.

14. The polyester film roll described in Claim 12 or 13, wherein the
25 magnetic recording medium is a magnetic recording medium whose magnetic layer is a ferromagnetic metal thin film layer.

15. The polyester film roll described in either one of Claims 12 to 14,
wherein the polyester film has a coating layer on the side on which the
magnetic surface is disposed and the surface with the coating layer is rolled in
30 the inner side.

16. A polyester film roll in which a polyester film is rolled on a core,
characterized in that, among the lengths of lines which are obtained by
measuring the diameters of said roll in the width direction of the roll, drawing

a straight line between both the ends of the curved line of the obtained roll diameters, and then vertically drawing the lines from said curved line to said straight line, the maximum length (maximum convex portion) on the convex portion side from said straight line is not more than $500\ \mu\text{m}$, and the maximum length (maximum concave portion) on the concave portion side from said straight line is not more than $300\ \mu\text{m}$.

17. The polyester film roll described in Claim 16, wherein the roughness R_a of at least one of the surfaces of the polyester film is 1 to 10 nm.

18. The polyester film roll described in Claim 16, wherein the thickness of the polyester film is 2 to $10\ \mu\text{m}$.

19. The polyester film roll described in Claim 16, wherein the degree of rolling hardness of the film roll is 90 to 100.

20. The polyester film roll described in Claim 16, wherein the width of the film roll is not less than 300 mm, and the rolled length of the film roll is not less than 4,000 m.

21. The polyester film roll described in Claim 16, wherein the polyester film is a film comprising polyethylene terephthalate or polyethylene 2,6-naphthalenedicarboxylate.

22. The polyester film roll described in Claim 16, wherein the polyester film roll is supplied for a magnetic recording medium.

23. The polyester film roll described in Claim 22, wherein the polyester film roll is supplied for a magnetic recording medium whose magnetic layer is a coating type.

24. The polyester film roll described in Claim 16, wherein, among the lengths of lines which are obtained by measuring the diameters of the film-rolling portion of the core in the width direction of the core, drawing a

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